

PATENT COOPERATION TREATY

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PATENT SERVICES

From the:
INTERNATIONAL SEARCHING AUTHORITY

RECEIVED: 21 JAN 2005

**DATA ENTERED
PCT**

To:

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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) 20 JAN 2005

Applicant's or agent's file reference
13773769

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/AU2004/001690

International filing date (day/month/year)

3 December 2004

Priority date (day/month/year)

3 December 2003

International Patent Classification (IPC) or both national classification and IPC

Int. Cl. ⁷ C07D 403/04; 403/14; 413/14; 471/04; A61K 31/497; A61P 31/12; 37/00

Applicant

CYTOPIA RESEARCH PTY LTD et al

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input checked="" type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the IPEA/AU

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

10/581412
1AP9 Rec'd PCT/PTO 01 JUN 2006

International application No.

PCT/AU2004/001690

Box No. I **Basis of the opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/AU2004/001690

Box No. V **Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	YES
	Claims 1-12	NO
Inventive step (IS)	Claims	YES
	Claims 1-12	NO
Industrial applicability (IA)	Claims 1-12	YES
	Claims	NO

2. Citations and explanations:

The following documents identified in the International Search Report have been considered for the purposes of this report:

D1 WO 2000/062778

D2 WO 2003/099811 (P,X document; *see Box VI*)

Novelty (N) and Inventive Step (IS) Claims 1-12

The present invention relates to pyrazine derivatives of formula 1 for use as kinase inhibitors. The compounds include D as a heterocyclic ring selected from imidazole.

However, D1 clearly discloses and teaches kinase inhibitors, particularly, compound 486 at page 165 wherein group D represents imidazole and A is hetaryl as in claim 1 of the present invention.

Therefore the invention as defined in claims 1-12 is not novel and lacks an inventive step.

**WRITTEN OPINION OF THE
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International application No.

PCT/AU2004/001690

Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

<u>Application No. Patent No.</u>	<u>Publication date (day/month/year)</u>	<u>Filing date (day/month/year)</u>	<u>Priority date (valid claim) (day/month/year)</u>
WO 2003/099881	04/12/2004	23/05/2003	23/05/2002

Compounds of formula 1 of the present invention are fully disclosed in D2, WO 2003/099881.

2. Non-written disclosures (Rules 43bis.1 and 70.9)

<u>Kind of non-written disclosure</u>	<u>Date of non-written disclosure (day/month/year)</u>	<u>Date of written disclosure referring to non-written disclosure (day/month/year)</u>
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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/AU2004/001690

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 3 is not clear. Several of the compounds recited in claim 3 do not appear to fall within the scope of claim 1.
These compounds include the last five compounds illustrated at page 62 of the instant application.